

PLANTS NEW TO THE UNITED STATES AND FLORIDA

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ABSTRACT

Eight taxa are reported as new to continental United States and the state of Florida: *Alstonia scholaris*, *Bromelia pinguin*, *Costus pulverulentus*, *Enydra fluctuans*, *Eucalyptus torelliana*, *Hygrophila difformis*, *Khaya senegalensis*, and *Oxalis triangularis* var. *papilionacea*. The reports for the non-native *Berberis bealei* and *Canna glauca* and the native *Rudbeckia auriculata* are the first for Florida. The occurrence of *Didiplis diandra* in Florida is verified.

RESUMEN

Se citan ocho taxa como nuevos para los Estados Unidos continentales y el estado de Florida: *Alstonia scholaris*, *Bromelia pinguin*, *Costus pulverulentus*, *Enydra fluctuans*, *Eucalyptus torelliana*, *Hygrophila difformis*, *Khaya senegalensis*, y *Oxalis triangularis* var. *papilionacea*. Las citas de las no nativas *Berberis bealei* y *Canna glauca* junto con la autóctona *Rudbeckia auriculata* son las primeras para Florida. Se verifica la existencia de *Didiplis diandra* en Florida.

Continuing study on the flora of Florida and for the *Guide to the Vascular Plants of Florida, Second Edition* (Wunderlin & Hansen, in press) has resulted in 12 taxa new to the state. Eight of these, all introduced, also likely represent new records for the continental United States. Three additional species, two introduced and one native, are new records for Florida, and the occurrence of *Didiplis diandra* is verified for the state. This paper emphasizes the potential for more natives to be discovered in Florida, as well as the high probability for invasion by exotics. Of the over 4,119 taxa of plants in Florida, 1,305 (32%) are non-native (Wunderlin & Hansen 2002). The criteria for including plants in the flora follow that of Wunderlin and Hansen (2000, p. 4).

SPECIES NEW TO CONTINENTAL UNITED STATES AND FLORIDA

Alstonia scholaris (L.) R.Br.—Palm Beach Co.: Village of Wellington, wetland preserve at Wellington Mall, T44S, R11E, Sec. 13, 22 Feb 2002, Miller s.n. (USF). Native to the Indo-Pacific area and occasionally cultivated in Florida, “dita” (or “white cheesewood”) can be expected as an escape. The seeds are wind dispersed,

and the plant at Wellington Mall apparently became established from nearby plantings. It now has been eradicated from the site.

Bromelia pinguin L.—Hillsborough Co.: Riverside Park, Temple Terrace, 6 Dec 2001, *Dickman s.n.* (USF). Native to tropical America, “penguin” is an escape from cultivation in central Florida.

Costus pulverulentus C. Presl—Orange Co.: Valencia Community College, East Campus, 700 block of North Econlockhatchee Trail, ca. 10 mi E of Orlando, T22S, R31E, Sec. 19, edge of riverine hammock, 1 Nov 2000, *Myers 2* (USF). Seminole Co.: Sweetwater Park, 100 block of Magnolia Street, Oviedo, 28°40.668'N, 81°12.352'W, oak hammock, 2 Sep 2001, *Myers 290* (USF). Native to tropical America and escaped from cultivation in Orange and Seminole Counties.

Enydra fluctuans Lour.—Hillsborough Co.: Tampa, ditch along the E side of Manhattan Avenue just S of the intersection of Manhattan Avenue and Rembrandt Drive on the Interbay Peninsula, T30S, R18E, Sec. 16, 7 Apr 2000, *Shuey & Poyner s.n.* (USF). “Buffalo Spinach” is a pantropical aquatic plant, sometimes cultivated for use in Asiatic foods. It is potentially highly invasive, readily rooting from stem fragments.

Eucalyptus torelliana F. Muell.—Palm Beach Co.: E of the intersection of Alternate A1A and Hood Road, Palm Beach Gardens, 14 Jun 2001, *Miller s.n.* (USF). “Torell’s eucalyptus” or “cadaga” is native to Australia and escaped from cultivation in southern Florida. Trees and seedlings occur in a designated preserve, these apparently coming from a development north of the site (Frenchman’s Creek) where this species is used in landscaping.

Hygrophila difformis (L.) Blume—Hillsborough Co.: spreading on clayey shelf of man-made pond on N side of Cherry Street, 0.7 mi W of park Road, Plant City, T28S, R22E, Sec. 21, SE $\frac{1}{4}$ of SW $\frac{1}{4}$, 5 May 1999, *Hansen & Wunderlin 12893* (USF). “Water wisteria,” native to southeastern Asia, is often grown as an aquarium plant. The Hillsborough County plants probably originated as a discard from an aquarium and have now formed a sizable population in the pond. It easily propagates from stem fragments and has high invasive potential in lakes, ponds, and rivers. When growing out of the water, it is erect and flowers profusely. However, mature seeds were not observed by Hansen and Wunderlin.

Khaya senegalensis (Desr.) A. Juss.—Collier Co.: Collier Seminole State Park, Campsite #7 of 1-19, T51S, R27E, Sec 27, SE $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$, rockland hammock, 17 Apr 1998, *Hattaway CS0319* (USF). “African mahogany” is native to Africa and widely grown as a street and timber tree in the tropics (Irvine 1961). It has the potential to invade disturbed tropical forests. It is naturalized in Western Australia (Csurhes & Edwards 1998). The population in Collier-Seminole State Park consisted of several trees (one very large), but these have now been eradicated.

Oxalis triangularis A. St.-Hil. subsp. **papilionacea** (Hoffmanns. ex Zucc.)

Lourteig—Leon Co.: several plants naturalized in deeply shaded loam along roadside of Duparc Circle near its W junction with Lakeshore Drive, Tallahassee, 23 Feb 2001, *Anderson 19691* (FSU). “Purpleleaf false shamrock,” native to South America, is occasionally cultivated in North America for its purple leaves. The Leon County site is the only location known where it is naturalized in North America.

SPECIES NEW TO FLORIDA

Berberis bealei Fortune—Leon Co.: naturalized single shrub (vegetative) in moist loam of deeply shaded creek swamp NNE of marker 20 in Elinor Klapp-Phipps Park, W of Meridian Rd, N of Tallahassee, T2N, R1W, Sec. 36, NW $\frac{1}{4}$ of NW $\frac{1}{4}$, 30 May 1996, *Anderson 16530* (FSU); flowering shrub in pine-oak woodland remnant on S side of Duparc Circle just N of Lakeshore Drive, Tallahassee, 23 Feb 2001, *Anderson 19688* (FSU). These two sites are about 1.6 miles apart. Naturalized in Delaware, Virginia, North Carolina, South Carolina, Georgia, and Alabama (USDA, NRCS 2002), “Beale’s barberry” or “leatherleaf mahonia” is now reported from Florida. It is an evergreen shrub native to China and frequently cultivated outside its native range.

Canna glauca L.—Madison Co.: along US 90, Greenville, 29 July 1967, *Beckner 1885* (FLAS). The species is native to tropical America and previously known in the United States only from Louisiana and Texas where it is considered to be native (Kress & Prince 2000). It is escaped from cultivation at one site in Madison Co., Florida, where it occurs as frequent clumps around several burned-out houses near a lake where it is spreading vegetatively and by seed.

Didiplis diandra (Nutt. ex DC.) A.W. Wood—Sarasota Co.: Pinelands Reserve, ca. 1 mi SW of Lower Myakka Lake, T38S, R19E, Sec. 1, freshwater marsh, 6 Apr 1998, *Morrison 98064-1* (USF). “Waterpurslane,” a submergent or emergent aquatic is apparently native from Minnesota and Wisconsin south to Georgia, Alabama, Mississippi, Louisiana, and Texas (USDA, NRCS 2002), and now documented in Florida. This species has been reported (sometimes as *Peplis diandra* Nutt. ex DC.) for Florida in many floras, (e.g., Chapman 1860; Correll & Johnston 1970; Crow & Hellquist 2000; Fassett 1957; Fernald 1950; Gleason & Cronquist 1963, 1991; Radford et al. 1968; Small 1933). The basis for these reports is not known. No Florida material was found at NY, the principal repository for A. W. Chapman and J. K. Small collections (Stafleu 1967). A search of the herbaria at FLAS and FSU also yielded no Florida material. It is not reported by Godfrey and Wooten (1981), Clewell (1985), or Wunderlin (1982, 1998). The species is apparently rare in much of its natural range, but is rather inconspicuous and perhaps has been overlooked. It is sometimes grown as an aquarium plant, but it is not believed that the Sarasota plants represent an introduction.

Rudbeckia auriculata (Perdue) Kral—Walton Co.: along US 331, 0.5 mi N of

FL 2 at Gordon, ca. 6.5 mi S of Paxton, roadside bog, 17 Aug 2000, *Searcy s.n.* (USF). A rare species, “eared coneflower” is known only from Georgia, Alabama (USDA, NRCS 2002), and now Florida. A second attempt to locate the plants was unsuccessful.

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REFERENCES

- CHAPMAN, A.W. 1860. *Flora of the southern United States*. New York: Ivison, Phinney & Co.
- CLEWELL, A.F. 1985. *Guide to the vascular plants of the Florida panhandle*. Gainesville: University presses of Florida/Florida State University Book.
- CORBELL, D.S. and M.C. JOHNSTON. 1970. *Manual of the vascular plants of Texas*. Renner: Texas Research Foundation.
- CROW, G.E. and C.B. HELLQUIST. 2000. *Aquatic and wetland plants of northeastern North America*. Volume 1. Pteridophytes, Gymnosperms, and Angiosperms: Dicotyledons. Madison: The University of Wisconsin Press.
- CSURHES, S. and R. EDWARDS. 1998. *Potential environmental weeds in Australia: Candidate species for preventive control*. Queensland Department of Natural Resources.
- FASSETT, N.C. 1957. *A manual of aquatic plants*. With revision appendix by E.C. Ogden. Madison: University of Wisconsin Press.
- FERNALD, M.L. 1950. *Gray's manual of botany*. 8th ed. New York: American Book Co.
- GLEASON, H.A. and A. CRONQUIST. 1963. *Manual of vascular plants of northeastern United States and adjacent Canada*. Princeton, NJ: D. Van Nostrand Co.
- GLEASON, H.A. and A. CRONQUIST. 1991. *Manual of vascular plants of northeastern United States and adjacent Canada*. New York: The New York Botanical Garden.
- GODFREY, R.K. and J.W. WOOTEN. 1981. *Aquatic and wetland plants of southeastern United States: Dicotyledons*. Athens: University of Georgia Press.
- IRVINE, F.R. 1961. *Woody plants of Ghana*. London: Oxford Press.
- KRESS, W. J. and L.M. PRINCE. 2000. Cannaceae. In: *Flora of North America Editorial Committee*. *Flora of North America north of Mexico*. 22: 310–314. New York/Oxford: Oxford University Press.
- RADFORD, A.E., H.E. AHLES, and C.R. BELL. 1968. *Manual of the vascular flora of the Carolinas*. Chapel Hill: University of North Carolina Press.
- SMALL, J.K. 1933. *Manual of the southeastern flora*. New York: Published by the Author.
- STAFFLEU, F.A. 1967. Taxonomic literature. *Regnum Veg.* 52:1–556.
- USDA, NRCS. 2002. The PLANTS database, version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA. (Accessed September 12, 2002).
- WUNDERLIN, R.P. 1982. *Guide to the vascular plants of central Florida*. Tampa: University of South Florida Book/University Presses of Florida.

- WUNDERLIN, R.P. 1998. Guide to the vascular plants of Florida. Gainesville: University Press of Florida.
- WUNDERLIN, R.P. and B.F. HANSEN. 2000. Flora of Florida. Volume 1: Pteridophytes and gymnosperms. Gainesville: University Press of Florida.
- WUNDERLIN, R.P. and B.F. HANSEN. 2002. Atlas of Florida vascular plants (<http://www.plantatlas.usf.edu>). [S.M. Landry and K.N. Campbell (application development), Florida Center for Community Design and Research.] Institute for Systematic Botany, University of South Florida, Tampa, FL. (accessed September 12, 2002).
- WUNDERLIN, R.P. and B.F. HANSEN. In Press. Guide to the vascular plants of Florida, second edition. Gainesville: University Press of Florida.